

Amendments to the Claims:

The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

- 5 Claim 1 (currently amended): A method for program debugging, the method comprising:
- setting a plurality of breakpoints corresponding to a plurality of events in a Basic Input/Output System (BIOS) program code, each event being a test executed by the BIOS program code to a peripheral device and taking a general
- 10 processing path when the peripheral device is working well or an error processing path when the peripheral device is in an error state;
- executing the BIOS program code for outputting a diagnosis code of ~~[[a]]~~ one of the plurality of breakpoints; breakpoint;
- setting a parameter to simulate the peripheral device is working well throughout
- 15 execution of the event corresponding to the diagnosis code by a branch command of a script file via an emulator; ~~code;~~
- executing the event corresponding to the diagnosis code according to the parameter for making the event undergo the general processing path;
- resetting the parameter to simulate the peripheral device being in the error state
- 20 throughout execution of the event corresponding to the diagnosis code by the branch command of the script file via the emulator; ~~code;~~ and
- executing the event corresponding to the diagnosis code according to the reset parameter for making the event undergo the error processing path; path;
- wherein the breakpoints are software interrupt, using a trap to stop the execution
- 25 of the emulator;
- wherein the breakpoint can be set ahead or after program codes of the
- corresponding event;
- if the breakpoints are set ahead of the corresponding events, the parameters are
- reset after the breakpoints;
- 30 if the breakpoints are set after the corresponding events, the script file should

spontaneously jump ahead of the branch command of the event and reset the parameter of the event.

Claims 2 -5 (canceled)

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Claim 6 (previously presented): The method of claim 1 wherein the error processing path produces an audible tone.

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Claim 7 (previously presented): The method of claim 1 wherein the error processing path causes a system reset.

Claim 8 (previously presented): The method of claim 1 wherein the error processing path causes a system execution interrupt.

15 Claims 9-16 (canceled)

Claim 17 (previously presented): The method of claim 1 further comprising:
executing the BIOS program code until the diagnosis code of the breakpoint
matches a predetermined diagnosis code before resetting the parameter of
the event corresponding to the diagnosis code, and executing the event
corresponding to the diagnosis code according to the reset parameter for
making the event undergo the error processing path.

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Claim 18 (currently amended): A method for program debugging, the method
comprising:
setting a plurality of breakpoints corresponding to a plurality of events in a driver
program code, each event being a test executed by the driver program code
to a peripheral device and taking a general processing path when the
peripheral device is working well or an error processing path when the
peripheral device is in an error state;

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- setting a parameter by a branch command of a script file via an emulator to
simulate that the peripheral device is working well throughout execution of
the driver program code;_
- executing the driver program code according to the parameter for outputting a
5 diagnosis code corresponding to each ~~breakpoint~~; breakpoint of the plurality
 of breakpoints;
- for said each breakpoint, determining whether the diagnosis code matches a user
defined diagnosis code; and
- resetting the parameter by the branch command of the script file via the emulator
10 to simulate that the peripheral device is in the error state and executing the
 event corresponding to the diagnosis code according to the reset parameter
 for making the event undergo the error processing path when it is
 determined that the diagnosis code matches the user defined diagnosis ~~code~~.
 code;
- 15 wherein the breakpoints are software interrupt, using a trap to stop the execution
 of the emulator;
- wherein the breakpoint can be set ahead or after program codes of the
 corresponding event;
- if the breakpoints are set ahead of the corresponding events, the parameters are
20 reset after the breakpoints;
- if the breakpoints are set after the corresponding events, the script file should
 spontaneously jump ahead of the branch command of the event and reset the
 parameter of the event.
- 25 Claim 19 (previously presented): The method of claim 18 further comprising
 continuing execution of the driver program code to a next breakpoint without
 resetting the parameter when it is determined that the diagnosis code does not
 match the user defined diagnosis code.
- 30 Claim 20 (canceled)

Claim 21 (previously presented): The method of claim 1 further comprising executing both the general processing path and the error processing path of all events of the plurality of events.

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Claim 22 (currently amended): A method for program debugging, the method comprising:

10 setting a plurality of breakpoints corresponding to a plurality of events in a Basic Input/Output System (BIOS) program code, each event being a test executed by the BIOS program code to a peripheral device and taking a general processing path when the peripheral device is working well and taking a generic event error handling path or a critical error path when the peripheral device is in an error state according to the error state, the path taken determined by a parameter;

15 setting the parameter by a branch command of a script file via an emulator to determine the general processing path;

executing the BIOS program code according to the parameter for outputting a diagnosis code at each breakpoint of the plurality of breakpoints, ~~of the breakpoints~~, each diagnosis code uniquely indicating the event

20 corresponding to one of the said each breakpoint of the plurality of breakpoints; ~~breakpoint~~;

when the outputted diagnostic code matches a predetermined diagnostic code, resetting the parameter by a branch command of the script file via the emulator to determine which of the generic event error handling path or the

25 critical error path is to be taken;

when the reset parameter determines the generic event error handling path is to be taken, executing the BIOS program code according to the reset parameter;

and

when the reset parameter determines the critical event error handling path is to be

30 taken, executing the BIOS program code according to the reset ~~parameter~~.

parameter;
wherein the breakpoints are software interrupt, using a trap to stop the execution
of the emulator;
wherein the breakpoint can be set ahead or after program codes of the
5 corresponding event;
if the breakpoints are set ahead of the corresponding events, the parameters are
reset after the breakpoints;
if the breakpoints are set after the corresponding events, the script file should
spontaneously jump ahead of the branch command of the event and reset the
10 parameter of the event.

Claims 23-24 (canceled)

15 Claim 25 (new): The method of claim 22 further comprising when executing the BIOS
program code according to the reset parameter and the reset parameter
determines the generic event error handling path is to be taken, writing error
messages to a file.

20 Claim 26 (new): The method of claim 22 further comprising when executing the BIOS
program code according to the reset parameter and the reset parameter
determines the critical event error handling path is to be taken, the critical error
handling path generates an audible tone, a system reset, or a stop execution
command.

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